

AMENDMENTS TO THE CLAIMS

1-18. (Cancelled)

19. (Currently Amended) Apparatus for ensuring the integrity of an application executed on a computer having data storage arranged sectorwise, comprising:

apparatus for learning about ~~the permitted normal~~ access behavior of said application to said data storage arranged sectorwise by monitoring accesses of said application to sectors ~~elements~~ of said data storage during a limited learning period in which said application is assumed to be uninfected by a virus; and

an enforcement device, operative after said limited learning period is over, for identifying and preventing said application from accessing sectors ~~elements~~ of data storage that do not correspond with the permitted access ~~normal~~ behavior of said application.

20. (Cancelled)

21. (Currently Amended) Apparatus according to claim 19 wherein said enforcement device is operative to prompt a user to give specific permission, upon occurrence of an attempt of said application ~~the program~~ to access sectors of data storage ~~files~~ not accessed during said limited learning period.

22-24. (Cancelled)

25. (Currently Amended) A method for detecting forbidden ~~abnormal~~ behavior of a first application executed on a computer system, and preventing ~~the~~ damage thereupon, comprising:

monitoring accesses of said first application to sectors ~~elements~~ of data storage arranged sectorwise in a storage device over a limited learning period, in which said first application is assumed to be uninfected by a virus, of time and storing data storage access permission information about said accesses in an enforcement file, thereby

learning ~~the permitted access normal~~ behavior of said application; and

when said limited learning period is over, detecting attempts of said application to access sectors ~~elements~~ of data storage that do not correspond to said permitted access normal behavior as determined by said enforcement file and inhibiting said attempts ~~accesses~~, thereby preventing ~~the~~ damage thereupon.

26. (Currently Amended) A method according to claim 25, further comprising enabling a ~~the~~ user of said first application to determine said permitted access normal behavior during said limited learning period.

27. (Currently Amended) A method according to claim 25, further comprising enabling a ~~the~~ user of said first application to determine said permitted access normal behavior after said limited learning period is over.

28. (Currently Amended) A method according to claim 26, further comprising enabling the user of said first application to determine said permitted access normal behavior after said limited learning period is over.

29. (Currently Amended) A method according to claim 25, further comprising detecting attempts of a child ~~daughter~~ application of said first application to access sectors ~~elements~~ of data storage that do not correspond to said permitted access normal behavior as determined by said enforcement file and inhibiting said attempts ~~accesses~~, thereby preventing ~~the~~ damage thereupon.

30. (Currently Amended) A method according to claim 26, further comprising detecting attempts of a child ~~daughter~~ application of said first application to access sectors ~~elements~~ of data storage that do not correspond to said permitted access normal behavior as determined by said enforcement file and inhibiting said attempts ~~accesses~~, thereby preventing ~~the~~ damage thereupon.

31. (Currently Amended) A method according to claim 27, further comprising detecting

attempts of a ~~child-daughter~~ application of said first application to access sectors
~~elements~~ of data storage that do not correspond to said permitted access ~~normal~~ behavior
as determined by said enforcement file and inhibiting said attempts~~-accesses~~, thereby
preventing ~~the~~ damage thereupon.

32. (Currently Amended) A method according to claim 25, further comprising detecting
attempts of a second application to access sectors~~elements~~ of data storage that do not
correspond to said permitted access ~~normal~~ behavior as determined by said enforcement
file and inhibiting said attempts~~-accesses~~, thereby preventing ~~the~~ damage thereupon.

33. (Currently Amended) A method according to claim 26, further comprising detecting
attempts of a second application to access sectors~~elements~~ of data storage that do not
correspond to said permitted access ~~normal~~ behavior as determined by said enforcement
file and inhibiting said attempts~~-accesses~~, thereby preventing ~~the~~ damage thereupon.

34. (Currently Amended) A method according to claim 27, further comprising detecting
attempts of a second application to access sectors~~elements~~ of data storage that do not
correspond to said permitted access ~~normal~~ behavior as determined by said enforcement
file and inhibiting said attempts~~-accesses~~, thereby preventing ~~the~~ damage thereupon.

35. (Currently Amended) A method according to claim 32~~-claim 29~~, wherein said second
application is executed on a second computer.

36. (Currently Amended) The apparatus of claim 19, wherein only permitted ~~normal~~
accesses of said application to sectors~~elements~~ of said data storage are monitored during
said limited learning ~~time~~ period.

37-38. (Cancelled)

39. (Currently Amended) A method according to claim 25, wherein said monitoring of
~~said~~ accesses of said first application to sectors~~elements~~ of data storage learns only the

permitted access ~~normal~~ behavior of said first application.

40. (Currently Amended) Apparatus for ensuring the integrity of an application executed on a computer having data storage arranged sectorwise, comprising:

apparatus for learning about ~~the~~ permitted ~~normal~~ access behavior of said application to said data storage arranged sectorwise by monitoring accesses of said application to sectors ~~elements~~ of said data storage during a limited learning period in which said application is assumed to be uninfected by a virus; and

an enforcement device, operative after said limited learning period is over, for granting said application no access rights to any sectors ~~elements~~ of data storage other than those sectors ~~elements~~ accessed during said limited learning period, to which access will be allowed.

41. (Currently Amended) A method for allowing permitted access and blocking forbidden access ~~detecting abnormal~~ behavior of a first application executed on a computer system; ~~and preventing the damage thereupon~~, comprising:

monitoring accesses of said application to sectors ~~elements~~ of data storage arranged sectorwise in a storage device over a limited learning period, in which said first application is assumed to be uninfected by a virus, of time and storing data storage access permission information about said accesses in an enforcement file, thereby learning the permitted access ~~normal~~ behavior of said application; and

when said limited learning period is over, granting said application no access rights to any sectors ~~elements~~ of data storage other than those sectors ~~elements~~ accessed during said limited learning period, to which access will be allowed.

42. (Currently Amended) A method for blocking forbidden ~~ensuring normal~~ access behavior of a program, the method comprising the steps of:

providing a list of access permissions of said program to sectors ~~elements~~ of data storage, whereby access of said program to sectors of data storage not on said list are forbidden accesses;

monitoring access requests of said program to data storage; and

upon indicating a request to access a sector ~~an element~~ of data storage which does not comply with said list, blocking said request ~~attempt~~.

43. (Currently Amended) A method according to claim 42, further comprising:

during a limited learning period in which said program is assumed to be uninfected by a virus, upon indicating by said monitoring a request to access a sector ~~an element~~ of data storage which is not on said list, adding said sector ~~element~~ to said list as allowable for access.

44. (Currently Amended) A method according to claim 42, wherein said monitoring further includes requests of a child ~~daughter~~ application of said program to access data storage.

45. (New) Apparatus according to claim 19 wherein said data storage arranged sectorwise is selected from a group consisting of a path and a file.

46. (New) A method according to claim 25, wherein said data storage arranged sectorwise is selected from a group consisting of a path and a file.

47. (New) Apparatus according to claim 40 wherein said data storage arranged sectorwise is selected from a group consisting of a path and a file.

48. (New) A method according to claim 41, wherein said data storage arranged sectorwise is selected from a group consisting of a path and a file.